

The spider genus *Leucauge* (Araneae: Tetragnathidae) from Taiwan

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Abstract — Nine species of the genus *Leucauge* belonging to the family Tetragnathidae are recorded from Taiwan. A new species, *L. taiwanica*, is described. Three species, *L. subblanda* Bösenberg & Strand, 1906, *L. liui* Zhu, Song & Zhang, 2003 and *L. fastigata* (Simon, 1877), are newly recorded from Taiwan. Male of *L. liui* is described for the first time. Four specific names are newly synonymized: *L. magnifica* Yaginuma, 1954 described from Japan with *L. celebesiana* (Walckenaer, 1842); *L. bimaculata* Zhu, Song et Zhang, 2003 from Yunnan, China with *L. subblanda*; and *L. nitella* Zhu, Song & Zhang, 2003 from Guizhou, China and *L. subtessellata* Zhu, Song & Zhang, 2003 from Taiwan with *L. tessellata* (Thorell, 1887). *L. subblanda* is revived from the synonymy of *L. celebesiana*.

Key words — taxonomy, *Leucauge*, Tetragnathidae, Taiwan, new species, new record, new synonymy

In Taiwan, seven species of the genus *Leucauge* belonging to the family Tetragnathidae, *L. argentina* (Hasselt, 1882), *L. blanda* (L. Koch, 1877), *L. decorata* (Blackwall, 1864), *L. magnifica* Yaginuma, 1954, *L. subtessellata* Zhu, Song & Zhang, 2003, *L. tessellata* (Thorell, 1887) and *L. venusta* (Walckenaer, 1842), have been recorded (Saito 1933; Lee 1964; Chu & Okuma 1970, 1975; Chen 1996; Tso & Tanikawa 2000; Zhu et al. 2003). Among them, *L. venusta* first reported by Saito (1933) was regarded as a misidentification by Chen (1996). *L. venusta* is mainly distributed in North America (Levi 1980), and is not distributed in Asia.

In my investigations throughout Taiwan, I collected many specimens of spiders. In this paper, I wish to report nine species of the genus *Leucauge* based on my collection. All specimens used in this paper were collected by me, excluding three specimens by Michio Kasagi. One species of this genus is described as new to science. Three species, *L. subblanda* Bösenberg & Strand, 1906, *L. liui* Zhu, Song & Zhang, 2003 and *L. fastigata* (Simon, 1877), are recorded for the first time from Taiwan. One species, *L. subtessellata* described from Taiwan, is synonymized with *L. tessellata*, and in addition the other three specific names are newly synonymized.

Holotype, allotype and some paratypes of the new species described in this paper are deposited in the collection of the Department of Zoology, National Museum of Nature and Science, Tokyo (NSMT). Other paratypes are preserved in the collection of the Yamagata Prefectural Museum, Yamagata.

Leucauge White, 1841

[Japanese name: Shirokanegumo zoku]

This genus is characterized by two rows of long trichobothria on the basal part of forth femora. It chiefly occurs in tropical and subtropical regions, comprising more than 160 species in the world (Platnick 2008). According to my examination, nine species of this genus are confirmed in Taiwan.

Nine species from Taiwan are divided into four species groups:

1. *L. celebesiana* species group

Abdomen is dorsally covered with silver pigments and usually with three longitudinal black lines. Four species, *L. celebesiana* (Walckenaer, 1842), *L. subblanda* Bösenberg & Strand, 1906, *L. blanda* (L. Koch, 1877) and *L. decorata* (Blackwall, 1864), belong to this group.

2. *L. liui* species group

Abdomen is dorsally covered with silver pigments and without distinct dorsal lines. One species, *L. liui* Zhu, Song & Zhang, 2003, is only a member of this group.

3. *L. tessellata* species group

Abdomen is covered with large black flecks and silver pigments. Forth tibiae have long and dense hairs in female. Three species, *L. tessellata* (Thorell, 1887), *L. taiwanica* new species and *L. fastigata* (Simon, 1877), belong to this group.

4. *L. argentina* species group

Abdomen is oval, not elongated. One species, *L. argentina* (Hasselt, 1882), belongs to this group. A Japanese species, *L. crucinota* (Bösenberg & Strand, 1906), is also a member of this group.

Leucauge celebesiana (Walckenaer, 1842)
[Japanese name: Ô-shirokanegumo]
(Figs. 1–4)

Tetragnatha celebesiana Walckenaer 1842, p. 222.

Leucauge celebesiana: Chrysanthus 1975, p. 23, figs. 81–87; Tikader 1982, p. 83, figs. 163–167; Song & Zhu 1992, p. 112, figs. 3C–D; Barrion & Litsinger 1995, p. 545, figs. 338; Song et al. 1999, p. 213, figs. 121C–D, 122A–B, 130I–J; Zhu et al. 2003, p. 223, figs. 119–120, pl. VII, figs. E–H.

Leucauge magnifica Yaginuma 1954, p. 2, figs. 1–2, 5–7, 11; Yaginuma 1960, p. 70, figs. 66–1, 3, pl. 33, fig. 182; Lee 1964, p. 55, figs. 19a–c; Chu & Okuma 1975, p. 105; Yaginuma 1986, p. 127, fig. 68–1, pl. 37, fig. 1; Chikuni 1989, p. 91, fig. 4; Chen 1996, p. 129; Song et al. 1999, p. 216, figs. 121M–N, 130P–Q (in part, only female); Namkung 2001, p. 224, fig. 18–11; Kim 2002, p. 425, fig. 598; Zhu et al. 2003, p. 231, fig. 125, pl. XVI, fig. C (in part, only female); Tanikawa 2005, p. 153; Tanikawa 2007, p. 101, figs. 347–349, 802–803; Chikuni 2008, p. 91, fig. 4. **New Synonymy**

Leucauge tuberculata (misidentification): Wang 1991, p. 156, fig. 16 (in part; only male); Song et al. 1999, p. 216, fig. 123E (in part; only male).

Specimens examined. 6♀, 4-VII-1977, 1♂, 6-VII-1977, 2♀, 3♂, 30-VII-1977, 1♀, 1♂, 1 juv., 23-X-2008, 2♀, 2♂, 25-X-2008, Wulai, Taipei County; 4♀, 1♂, 31-III-1979, 5♀, 1♂, 26-XII-1997, 1♀, 27-XII-1997, Nanshanchi, Nantou County; 2♀, 2♂, 25-VII-1977, 1♀, 27-III-1979, Shuishe (Sun Moon Lake), Nantou County; 2♀, 16-VII-1977, 4♀, 1♂, 2 juv., 19-VII-1977, 2♀, 20-VII-1977, 1♂, 21-VII-1977, 1♂, 4 juv., 22-VII-1977, Chitou, Nantou County.

Notes. *L. magnifica* Yaginuma, 1954 described from Japan is newly synonymized with this species, and *L. subblanda* Bösenberg & Strand, 1906 described from Japan is revived from the synonymy of this species. Though Song & Zhu (1992) had synonymized *L. subblanda* with this species, Tanikawa (2005) regarded the synonymy was erroneous. In this paper, I agree with Tanikawa (2005) and in addition make another synonymy. *L. celebesiana* illustrated by Chrysanthus (1975, figs. 81–87) and Zhu et al. (2003, figs. 119–120) is same as *L. magnifica*, but is different from *L. subblanda* (cf. Figs. 3–4, 7–8; Chikuni 1989, 2008, p. 91, figs. 4, 6; Tanikawa 2007, figs. 802–805). In addition, figures of male palpus of *L. magnifica* made by Song et al. (1999, figs. 122I–J) and Zhu et al. (2003, fig. 126) seem to be mistaken for those of *L. subblanda* (cf. Fig. 8; Chikuni 1989, 2008, p. 91, fig. 6; Tanikawa 2007, fig. 805).

Female abdomen, epigynum and male palpus are illustrated in Figs. 1–4.

Distribution. Taiwan (Taipei and Nantou Counties). Japan, China, Korea, the Philippines, Indonesia, New Guinea and India.

Leucauge subblanda Bösenberg & Strand, 1906
[Japanese name: Ko-shirokanegumo]
(Figs. 5–8)

Leucauge subblanda Bösenberg & Strand 1906, p. 184, pl. 15, fig. 406; Yaginuma 1954, p. 2, figs. 9, 15; Yaginuma 1960, p. 70, fig. 66–5, pl. 33, fig. 181; Yaginuma 1986, p. 127, fig. 68–3, pl. 37, fig. 3; Chikuni 1989, p. 91, fig. 6; Tanikawa 2005, p. 153; Tanikawa 2007, p. 102, figs. 350–353, 804–805; Chikuni 2008, p. 91, fig. 6.

Leucauge magnifica (misidentification): Song et al. 1999, p. 216, figs. 122I–J (in part; only male); Zhu et al. 2003, p. 231, fig. 126 (in part; only male).

Leucauge celebesiana (misidentification): Namkung 2001, p. 225, fig. 18–12; Kim 2002, p. 426, fig. 599.

Leucauge bimaculata Zhu et al. 2003, p. 219, fig. 116. **New Synonymy**

Specimens examined. 1♀, 20-VII-1977, Chitou, Nantou County; 2♀, 23-VII-1977, Tsuifeng, Nantou County; 6♀, 10-VII-1977, 3♀, 11-VII-1977, Alishan, Chiayi County. Japanese specimens for comparison: 1♂, 22-VI-1986, Takinosawa, Higashine-shi, Yamagata Prefecture; 1♀, 1♂, 25-VI-1972, Mt. Sakazuki-yama, Yamagata-shi, Yamagata Prefecture; 1♀, 3-VIII-1976, Nishizao, Yamagata-shi, Yamagata Prefecture.

Notes. This species is recorded for the first time from Taiwan. Relationship and synonymy among three specific names, *L. subblanda* Bösenberg & Strand, 1906, *L. celebesiana* (Walckenaer, 1842) and *L. magnifica* Yaginuma, 1954, are given under the notes of *L. celebesiana*. Records of *L. celebesiana* from Korea (Namkung 2001; Kim 2002) were due to the misidentification of this species. *L. bimaculata* Zhu, Song & Zhang, 2003 described from Yunnan, China is newly synonymized with this species. Genital organs of *L. bimaculata* (Zhu et al. 2003, p. 219, fig. 116) are not distinguished from those of this species (cf. Fig. 7–8; Tanikawa 2007, figs. 804–805; Chikuni 1989, 2008, p. 91, fig. 6).

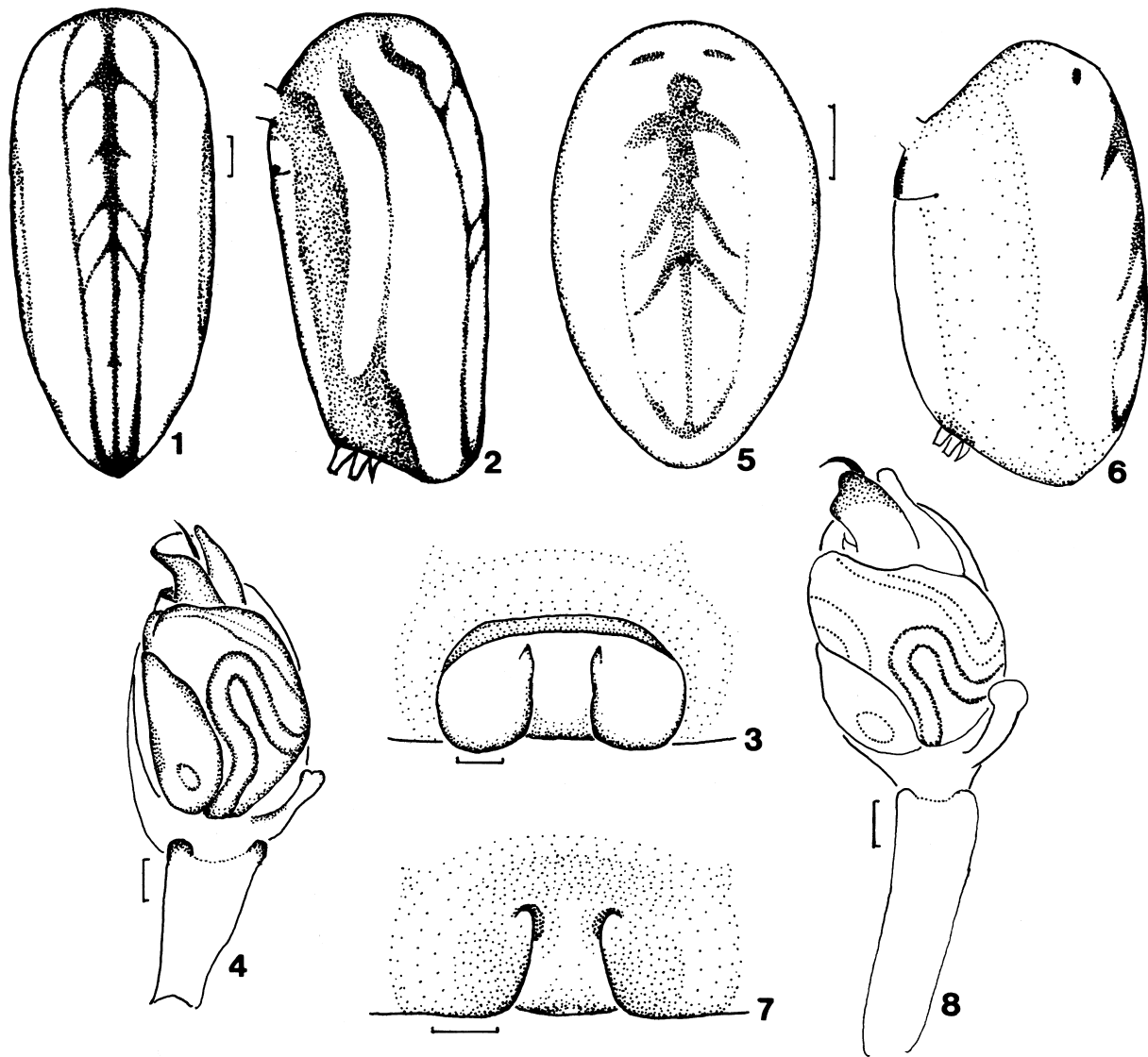
Female abdomen and epigynum are illustrated in Figs. 5–7. I did not obtain male specimens from Taiwan, so male palpus is illustrated in Fig. 8 based on Japanese ones.

Distribution. Taiwan (Nantou and Chiayi Counties). Japan, China and Korea.

Leucauge blanda (L. Koch, 1877)
[Japanese name: Chûgata-shirokanegumo]

Meta blanda L. Koch 1877, p. 743, pl. 15, fig. 5.

Leucauge blanda: Bösenberg & Strand 1906, p. 182, pl. 3, fig. 8, pl. 15, fig. 394; Yaginuma 1954, p. 2, figs. 3–4, 8, 12; Yaginuma 1960, p. 70, figs. 66–2, 4, pl. 33, fig. 180; Lee 1964, p. 55, figs. 18e–g; Chu & Okuma 1970, p. 72; Chu & Okuma 1975, p. 104; Yaginuma 1986, p. 127, fig. 68–2, pl. 37, fig. 2; Chikuni 1989, p. 91, fig. 5; Song & Zhu 1992, p. 112, figs. 3A–B; Chen 1996, p. 129; Song et al. 1999, p. 213,



Figs. 1–8. *Leucauge celebesiana* (Walckenaer, 1842), ♀ (1–3) and ♂ (4) from Chitou, 19-VII-1977; *L. subblanda* Bösenberg & Strand, 1906, ♀ (5–7) from Alishan, 10-VII-1977, and ♂ (8) from Higashine-shi, Yamagata Prefecture, Japan, 22-VI-1986. — 1–2, 5–6, abdomen, dorsal (1, 5) and lateral (2, 6) views; 3, 7, epigynum, ventral view; 4, 8, left palpus, ventral view. Scales: 1 mm (1–2, 5–6) and 0.1 mm. (3–4, 7–8).

figs. 121A–B, Q–R, 130G–H; Namkung 2001, p. 223, fig. 18–10; Kim 2002, p. 425, fig. 597; Zhu et al. 2003, p. 220, figs. 117–118; Tanikawa 2005, p. 153; Tanikawa 2007, p. 101, figs. 343–346, 800–801; Chikuni 2008, p. 91, fig. 5.

Specimens examined. 1♂, 29-VII-1977, 1♂, 1 juv., 25-X-2008, Wulai, Taipei County; 1♀, 3♂, 5-VII-1977, Gueishan, Taipei County; 1♀, 1♂, 23-VII-1977, 1♂, 31-III-1979, Nanshanchi, Nantou County; 1♀, 1♂, 25-VII-1977, Shuishe (Sun Moon Lake), Nantou County.

Distribution. Taiwan (Taipei and Nantou Counties). Japan, China and Korea.

Leucauge decorata (Blackwall, 1864)
[Japanese name: Togari-shirokanegumo]

Tetragnatha decorata Blackwall 1864, p. 44.

Leucauge decorata: Chu & Okuma 1970, p. 72, fig. 4; Chrysanthus 1975, p. 23, figs. 88–94; Chu & Okuma 1975, p. 105; Tikader 1982, p. 78, figs. 155–158; Koh 1989, p. 57; Tanikawa 1990, p. 10, figs. 10–14; Song & Zhu 1992, p. 112, figs. 3E–F; Barrion & Litsinger 1995, p. 539, figs. 332–333; Chen 1996, p. 129; Song et al. 1999, p. 216, figs. 121H–I, 122C–D, 130K; Zhu et al. 2003, p. 228, figs. 123–124; Tanikawa 2005, p. 153; Tanikawa 2007, p. 102, figs. 354, 806–807.

Specimens examined. 1 juv., 26-XII-1997, Nanshanchi, Nantou County; 1 juv., 14-VIII-1993, Lanyu Island, Taitung County; 1♀, 13-VIII-1993, Kenting, Pingtung County.

Notes. Five Chinese species, *L. mammilla* Zhu, Song & Zhang, 2003, *L. tanikawai* Zhu, Song & Zhang, 2003, *L. wangi* Zhu, Song & Zhang, 2003, *L. xiaoen* Zhu, Song & Zhang, 2003 and *L. zizhong* Zhu, Song & Zhang, 2003, are closely allied to this species in general appearances and genital organs. It is possible some or all of them are synonyms of this species. Further revision is needed.

Distribution. Taiwan (Nantou and Pingtung Counties, and Lanyu Island). Japan (the Nansei Islands) and China. Paletropical.

Leucauge liui Zhu, Song & Zhang, 2003
(Figs. 9–13)

Leucauge liui Zhu et al. 2003, p. 230, fig. 124.

Specimens examined. 1♀, 19-VII-1977, 12♀, 1♂, 3 juv., 20-VII-1977, 1♀, 21-VII-1977, Chitou, Nantou County; 1♀, 31-III-1979, Nanshanchi, Nantou County.

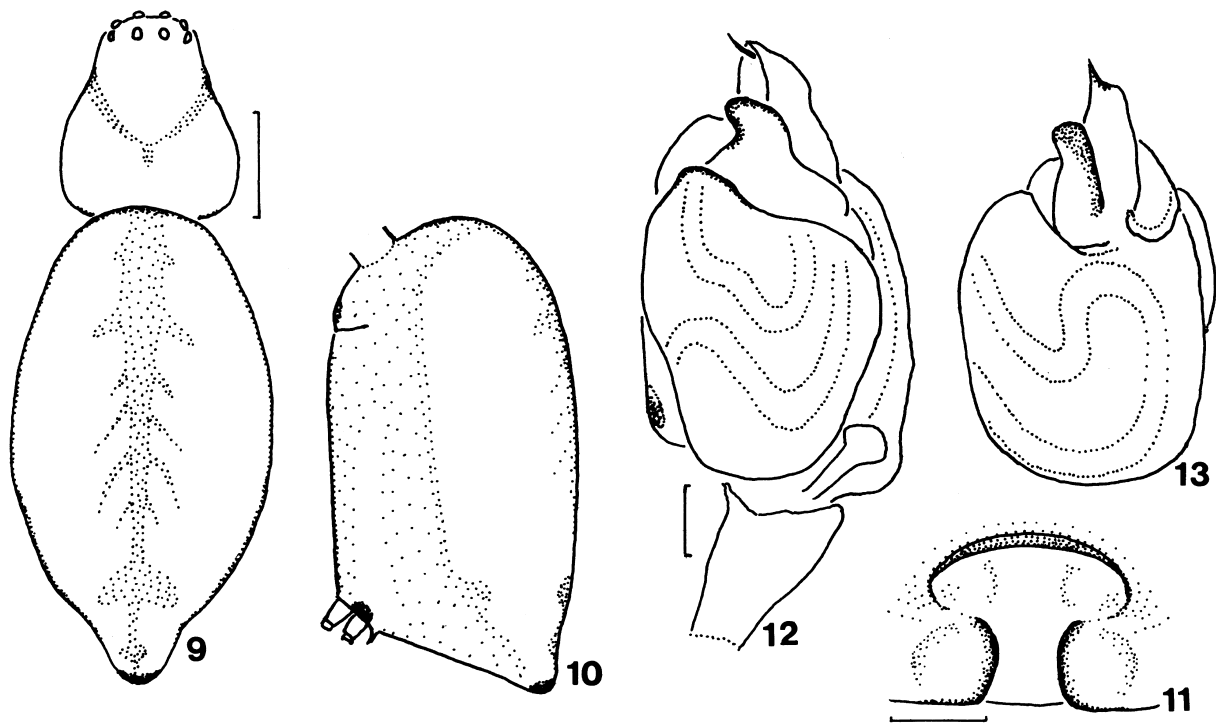
Notes. This species is newly recorded from Taiwan and male of it is described for the first time. Though pairs of dorsal black flecks on abdomen are indistinct, a large posterior black fleck and a pair of black spots on both sides of spinnerets are distinct (Figs. 9–10). Excluding dorsal flecks, colorations of the specimens from Taiwan are nearly

same as those from Hainan, China. This species is similar to *L. subgemmea* Bösenberg & Strand 1906 in general appearance and male palpus, but is distinguishable from it by epigynum with two shallow depressions.

Description. Carapace oblong (Fig. 9). Eyes almost equal in size. Chelicerae with three teeth on anterior margin of fang furrow and four on posterior margin; in male, anteriorly with a large spine. Leg formula, 1, 2, 4, 3. Trichobotria on forth femora occupying a half of their length. Male legs with many spines: femora, dorsal large; first femora, a series of ventral short; patellae, a distal; tibiae, dorsal large; first and second metatarsi, two basal; and third and forth metatarsi, several spines. Abdomen cylindrical, overhanging to the carapace, and extending to posteriorly above the spinnerets (Figs. 9–10). Epigynum and male palpus as shown in Figs. 11–13.

Coloration (Figs. 9–10). Carapace and sternum yellowish brown. Chelicerae yellowish brown with brown fangs and teeth. Maxillae and labium yellowish brown, marginally brown. Legs yellowish brown, metatarsi and tarsi brown. Abdomen yellowish brown, with silver pigments and black flecks. Black flecks on abdomen indistinct in some specimens.

Measurements (in mm, ♀/♂ from Chitou, 20-VII-1977). Body length 6.05/4.37. Carapace length 2.05/1.84; width 1.42/1.26. Abdomen length 4.26/2.53; width 2.47/1.21; height 2.58/1.26. Length of legs [total (femur + patella + tibia + metatarsus + tarsus)]: I 10.26 (3.11 + 3.37 + 2.89 +



Figs. 9–13. *Leucauge liui* Zhu, Song & Zhang, 2003, ♀ (9–11) and ♂ (12–13) from Chitou, 20-VII-1977. — 9, carapace and abdomen, dorsal view; 10, abdomen, lateral view; 11, epigynum, ventral view; 12–13, left palpus, ventral (12) and retrolateral (cymbium excluded, 13) views. Scales: 1 mm (9–10) and 0.1 mm (11–13).

0.89)/ 11.05 (3.11+3.68+3.37+0.89); II 7.74 (2.47+2.37+2.11+0.79)/ 8.38 (2.53+2.58+2.53+0.74); III 4.05 (1.47+1.05+1.00+0.53)/ 3.74 (1.21+1.11+0.89+0.53); IV 6.31 (2.26+1.68+1.74+0.63)/ 6.31 (2.26+1.68+1.74+0.63). Variation (♀). Body length 4.68–6.05; carapace length 1.58–2.05; abdomen length 3.63–4.26.

Distribution. Taiwan (Nantou County). China (Hainan).

Leucauge tessellata (Thorell, 1887)
(Figs. 14–18)

Callinethis tessellata Thorell 1887, p. 135.

Leucauge tessellata: Tikader 1982, p. 80, figs. 159–162; Tso & Tanikawa 2000, p. 127, figs. 7–9; Zhu et al. 2003, p. 244, figs. 134–135, pl. VIII, figs. A–D; Jäger 2007, p. 35.

Leucauge lygisma Wang 1991, p. 154, figs. 7–9 (in part; only female).

Leucauge termisticta Song & Zhu 1992, p. 113, fig. 1; Song et al. 1999, p. 216, figs. 121E–F, 123A–B, 131A–B.

Leucauge nitella Zhu et al. 2003, p. 237, figs. 129–130. **New Synonymy**

Leucauge subtessellata Zhu et al. 2003, p. 241, fig. 132. **New Synonymy**

Specimens examined. 3♀, 23-X-2008, Wulai, Taipei County; 1♀, 15-VII-1977, 8♀, 2♂, 16-VII-1977, 2♀, 1♂, 17-VII-1977, 1♀, 16-VIII-1993, Chihpen spa, Taitung County.

Notes. Though Tso & Tanikawa (2000) first reported this species from Miaoli and Nantou Counties, Taiwan, *L. subtessellata* Zhu, Song & Zhang, 2003 was described based on the same specimens reported by them. I regard *L. subtessellata* is a synonym of *L. tessellata*. Jäger (2007) also suspected this synonymy. *L. nitella* Zhu, Song & Zhang, 2003 described from Guizhou, China is also synonymized with this species. There are no clear discriminating characteristics among them. According to figures of

abdomen illustrated by Zhu et al. (2003), black flecks on abdomen are large and distinct (Zhu 2003, fig. 130) or indistinct (Zhu 2003, fig. 132), but they seem to be variations of individuals. They are nearly same colorations as shown in Figs. 14–16.

Female abdomen, epigynum and male palpus are illustrated in Figs. 14–18.

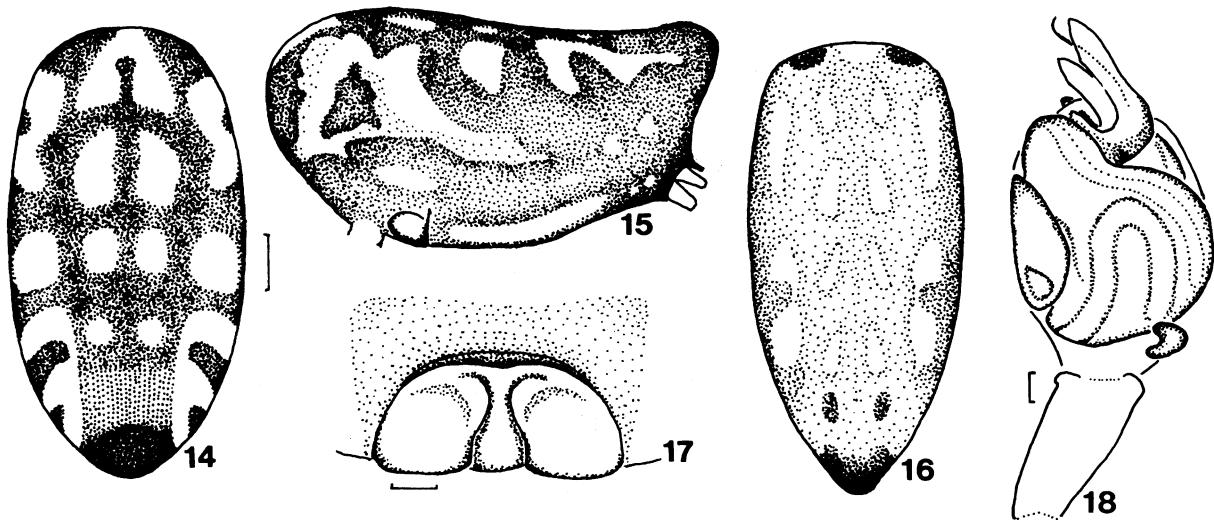
Distribution. Taiwan (Taipei, Miaoli, Nantou and Taitung Counties). China to Indonesia and India.

Leucauge taiwanica new species
(Figs. 19–25)

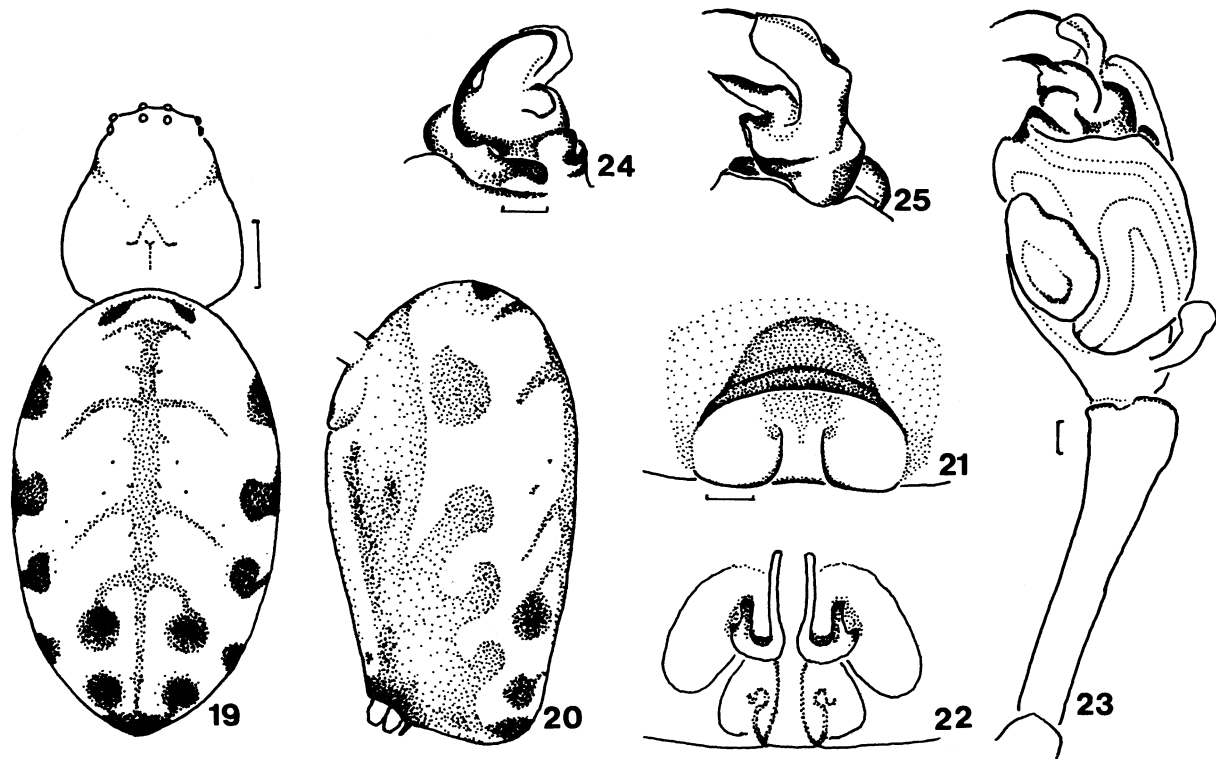
Type series. Holotype: ♀, 13-VIII-1993 (NSMT-Ar 8383), allotype: ♂, 14-VII-1977 (NSMT-Ar 8384) and paratypes: 4♀, 1 juv., 13-VII-1977, 9♀, 14-VII-1977 (NSMT-Ar 8385), 7♀, 1♂, 1 juv., 13-VIII-1993, Kenting, Pingtung County, Taiwan, H. Yoshida leg.; 1♀, 2 juv., 17-III-1979, Kenting, M. Kasagi leg.

Diagnosis. The present new species resembles *Leucauge tessellata* (Thorell, 1887), but is distinguishable from the latter by the following points (characteristics of *L. tessellata* in parenthesis): 1) female abdomen oval, laterally with three wavy black flecks (cylindrical with large flecks); 2) female forth tibia and metatarsus (only tibia) with dense hairs; 3) epigynum with anterior deep eave (shallow eave); 4) under side part of conductor of male palpus with spine-like projection (round); and 5) length of tibia of male palpus nearly same as (two-thirds of) that of tarsus.

Description. Female (holotype). Carapace oblong (Fig. 19). Chelicerae with three teeth on anterior margin of fang furrow and four on posterior margin. Leg formula, 1, 2, 4, 3. Trichobotoria on forth femora occupying two-fifths of their length; forth tibiae and metatarsi with long and dense hairs, distally long in tibiae and distally shorter in metatarsi. Abdomen oval, overhanging to the carapace, and extending



Figs. 14–18. *Leucauge tessellata* (Thorell, 1887), ♀ (14–17) and ♂ (18) from Chihpen spa, 16-VII-1977. — 14–16, abdomen, dorsal (14, 16) and lateral (15) views; 17, epigynum, ventral view; 18, left palpus, ventral view. Scales: 1 mm (14–16) and 0.1 mm (17–18).



Figs. 19–25. *Leucauge taiwanica* new species, ♀ holotype (19–22) and ♂ allotype (23–25). — 19, carapace and abdomen, dorsal view; 20, abdomen, lateral view; 21, epigynum, ventral view; 22, internal genitalia, dorsal view; 23, left palpus, ventral view; 24–25, apical part of left palpus, prolateral (24) and retrolateral (25) views. Scales: 1 mm (19–20) and 0.1 mm (21–25).

to posteriorly above the spinnerets (Figs. 19–20).

Genital organ as shown in Figs. 21–22: epigynum with two longitudinal shallow depressions divided into three superficial parts, and with an anterior deep eave; two openings situated under the eave; and seminal receptacles oval and membranous.

Coloration (Figs. 19–20). Carapace brown. Chelicerae brown with blackish fangs and teeth. Maxillae, labium and sternum brown, marginally blackish. Legs: coxae, trochanters and basal femora brown; and distal femora, patellae, tibiae, metatarsi and tarsi blackish brown. Abdomen grayish brown; dorsum with silver pigments and pairs of anterior and posterior black spots; laterals with silver pigments, and a circular, three wavy and transverse black flecks; venter with a pair of longitudinal silver pigments and a median wide black band; and epigastric area brown with dark epigynum.

Male (allotype). Legs with many spines on each segment; distal part of first tibiae ventrally with eight short spines and second with six ones; first metatarsi ventrally with 41 tooth-like spines and second with 22 ones; fourth femora without trichobotria; and tibiae and metatarsi without dense hairs. Abdomen cylindrical.

Palpus as shown in Figs. 23–25: embolus thin and short with a large base; conductor concave, under side part with spine-like projection; tegulum large; subtegulum situated prolateral side of tegulum; cymbium basally with

paracymbium and a spine-like prolateral apophysis; and length of tibia nearly same as that of tarsus.

Other characteristics are as same as female.

Measurements (in mm, ♀ holotype/ ♂ allotype). Body length 9.47/6.84. Carapace length 4.00/3.05; width 2.42/2.21. Abdomen length 6.32/4.11; width 3.47/1.68; height 4.73/2.00. Length of legs: I 22.64 (6.74+7.79+6.32+1.79)/ 33.05 (8.95+10.84+11.36+2.00); II 17.68 (5.37+5.68+5.26+1.37)/ 25.26 (7.37+8.42+7.89+1.58); III 9.05 (2.95+2.63+2.42+1.05)/ 9.90 (3.16+2.95+2.74+1.05); IV 15.89 (5.26+4.95+4.42+1.26)/ 17.79 (5.58+5.47+5.58+1.16). Palpus of male: femur 2.42, patella & tibia 1.47. Variation (♀/ ♂). Body length 7.26–10.11/6.42–6.84; carapace length 3.16–4.00/2.74–3.05; abdomen length 4.42–7.37/4.00–4.11.

Distribution. Taiwan (Pingtung County).

Etymology. The specific name is derived from Taiwan.

Leucauge fastigata (Simon, 1877)
(Figs. 26–28)

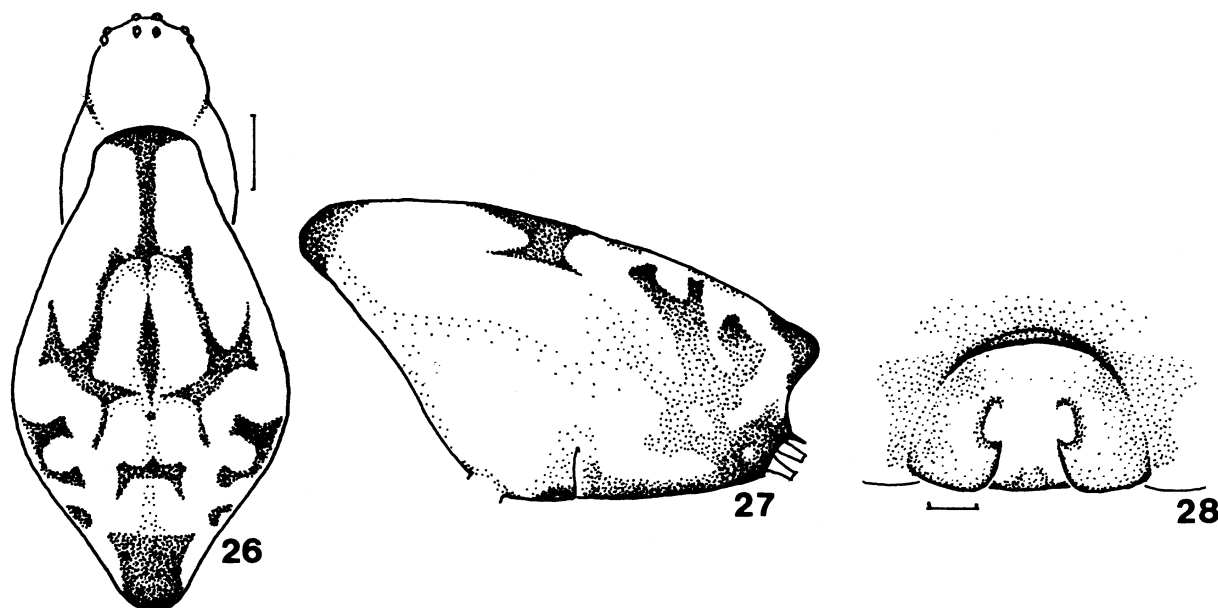
Meta fastigata Simon 1877, p. 79, pl. 3, fig. 10.

Callinethis elegans Thorell 1887, p. 134.

Leucauge fastigata: Tikader 1982, p. 76, figs. 151–154; Koh 1989, p. 58; Barrion & Litsinger 1995, p. 540, fig. 335.

Opadometa fastigiata (lapsus): Archer 1951, p. 9.

Opadometa fastigata: Zhu et al. 2003, p. 286, fig. 159.



Figs. 26–28. *Leucauge fastigata* (Simon, 1877), ♀ from Kenting, 13-VIII-1993. — 26, carapace and abdomen, dorsal view; 27, abdomen, lateral view; 28, epigynum, ventral view. Scales: 1 mm (26–27) and 0.1 mm (28).

Specimen examined. 1♀, 13-VIII-1993, Kenting, Pingtung County.

Notes. Though Archer (1951) had transferred this species to the genus *Opadometa* and Zhu et al. (2003) also used *Opadometa*, in this paper I treat it under the genus *Leucauge*. Type species of the genus *Opadometa*, *O. grata* (Guérin, 1838), has peculiar characteristics in male palpus and chelicera. Further revision will be done when male specimen of this species will be obtained.

Description. Carapace oblong (Fig. 26). Chelicerae with three teeth on anterior margin of fang furrow and four on posterior margin. Leg formula, 1, 2, 4, 3. Trichobotria on forth femora occupying a half of their length. Abdomen suboval, strongly overhanging to the carapace, and extending to posteriorly above the spinnerets (Figs. 26–27). Epigynum as shown in Fig. 28.

Coloration (Figs. 26–27). Carapace yellowish brown. Chelicerae brown, distally dark. Maxillae and labium blackish brown. Sternum yellowish brown with median blackish flecks. Legs dark brown; tibiae with basal and one-third of distal light bands; and metatarsi with a basal light band. Abdomen grayish brown, with silver pigments and black flecks.

Measurements (in mm, ♀ from Kenting, 13-VIII-1993). Body length 8.00. Carapace length 2.84; width 2.21. Abdomen length 6.95; width 3.58; height 4.32. Length of legs: I 13.36 (4.21+4.42+3.68+1.05); II 11.27 (3.58+3.58+3.16+0.95); III 6.31 (2.11+1.68+1.68+0.84); IV 10.21 (3.47+2.74+3.05+0.95).

Distribution. Taiwan (Pingtung County). China (Hainan), the Philippines, Indonesia, India and Sulawesi.

Leucauge argentina (Hasselt, 1882)

Theridion argentina Hasselt 1882, p. 34, pl. 2, fig. 5.

Leucauge argentina: Koh 1989, p. 56; Barrion & Litsinger 1995, p. 543, fig. 336; Tso & Tanikawa 2000, p. 126, figs. 1–6; Zhu et al. 2003, p. 217, fig. 115.

Specimens examined. 3♀, 2 juv., 15-VIII-1993, Lanyu Island, Taitung County.

Notes. Tso & Tanikawa (2000) first recorded this species from Lanyu Island, Taiwan. I also collected this species from the island.

Distribution. Taiwan (Lanyu Island). The Philippines, Indonesia and Singapore.

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